

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing Of Claims:

1.-20. (Canceled)

21. (New) A method for phosphating metal layers, comprising:

electrolytically depositing a phosphating layer from acid aqueous solutions which contain at least zinc ions and phosphate ions, while simultaneously applying direct current; and

simultaneously with the depositing of the phosphating layer, electrolytically depositing zinc in an electrolyte in accordance with a current density greater than -5 A/dm^2 .

22. (New) The method as recited in Claim 21, wherein the current density is in the range of -5 to -50 A/dm^2 .

23. (New) The method as recited in Claim 21, wherein a temperature amounts to $> 40^\circ\text{C}$ and is preferably between 40 and 80°C , especially between 60 and 70°C .

24. (New) The method as recited in Claim 21, wherein the electrolyte contains zinc ions in the range of $> 5 \text{ g/l}$, especially in the range of 5 - 50 g/l , and phosphate ions in the range of $> 10 \text{ g/l}$, especially in the range of 10 - 80 g/l .

25. (New) The method as recited in Claim 21, wherein the acid aqueous solutions additionally contain ions of elements that are able to form an alloy with zinc, so that when there is a deposit of a phosphating layer, a deposit of zinc and/or zinc alloys takes place simultaneously.

26. (New) The method as recited in Claim 25, wherein instead of the ions, nanoparticles or organic molecules are used.

27. (New) The method as recited in Claim 25, wherein the additional ions are the ions of a divalent metal M.

28. (New) The method as recited in Claim 27, wherein the additional divalent metal M is selected from the group made up of Ni, Fe, Co, Cu, Mn.

29. (New) The method as recited in Claim 21, wherein the metal layers are selected from the group made up of stainless steel, bronze, Al, Al alloys, Cu, Cu alloys, Ni, Ni alloys.
30. (New) The method as recited in Claim 21, wherein the pH value of the electrolyte lies between approximately 1.5 and approximately 4, preferably between approximately 2.5 and approximately 3.5.
31. (New) The method as recited in Claim 21, further comprising adding an accelerator to the electrolyte.
32. (New) The method as recited in Claim 31, wherein the accelerator is selected from the group made up of urea, nitrate, nitrite, chlorate, bromate, hydrogen peroxide, ozone, organic nitro bodies, peroxy compounds, hydroxylamine or mixtures thereof.
33. (New) The method as recited in Claim 27, wherein the metal ions of the divalent metal M are supplied by anodic dissolution of the electrolyte.
34. (New) The method as recited in Claim 21, further comprising adding Zn, Ni, Co and/or Mn salts to the electrolyte.
35. (New) The method as recited in Claim 21, wherein the electrolyte has the following composition:
- Zn^{2+} : 5-40 g/l
 - M^{2+} 0.5-10 g/l
 - H_2PO_4^- : 10-40 g/l and
 - NO_3^- 1-10 g/l
36. (New) The method as recited in Claim 21, wherein the electrolysis is performed either in a potentiostatic or a galvanostatic manner or a mixture of the two components.
37. (New) The method as recited in Claim 21, wherein a layer thickness distribution on the metal layers is regulated by the local current density.
38. (New) The method as recited in Claim 21, wherein a direct current is pulsed.
39. (New) The method as recited in Claim 21, wherein the speed of the layer formation lies in the range of approximately 3 to approximately 20 $\mu\text{m}/\text{min}$.

40. (New) A metal layer, comprising:

a porous zinc phosphate layer, wherein pores of the zinc phosphate layer are filled with metallic zinc and/or zinc alloy.